

WE CLAIM:

1. A lower leg surrogate comprising:

Accordingly, the invention relates to a lower leg surrogate comprising:

- (a) an outer skin formed of a flexible, resilient material;
- (b) a tissue resembling gel encased in said skin;
- (c) a simulative bone assembly in said gel, said bone assembly including:
 - (i) an elongated cylindrical tibia body;
 - (ii) an ankle piece bonded to a bottom end of said tibia body;
 - (iii) at least one heel block bonded to said ankle piece, said heel block having an arch at the bottom thereof; and
 - (iv) a heel pad extending across the bottom of the heel block and the arch.

2. The lower leg surrogate of claim 1, including a pair of heel blocks bonded to each other and to said ankle piece, said heel blocks being shaped to define said arch at the bottom center of the assembly.

3. The lower leg surrogate of claim 2, including a tendon strip in a bottom surface of each said heel block.

4. The lower leg surrogate of claim 1, wherein said outer skin is formed of latex.

5. The lower leg surrogate of claim 1, wherein said gel is gelatin.

6. The lower leg surrogate of claim 1, wherein said tibia body is formed of a fiber reinforced polymer.

7. The lower leg surrogate of claim 6, wherein said ankle piece and said heel blocks are formed of rigid, cellular polyurethane.

8. The lower leg surrogate of claim 7, wherein said ankle piece and said heel blocks are coated with a fiber reinforced epoxy resin.

9. The lower leg surrogate of claim 8, wherein said heel pad is formed of a room temperature vulcanizing silicone.

10. The lower leg surrogate of claim 3, including a cartilage simulative diaphragm on surfaces of said ankle piece abutting said tibia body and said heel blocks.

11. The lower leg surrogate of claim 10, wherein said ankle piece has the shape of a section of a cylinder with a convex top surface connected to a bottom end of said tibia body and inclined bottom surfaces bonded to top ends of said heel blocks.

12. The lower leg surrogate of claim 11, wherein said diaphragm is formed of room temperature vulcanizing silicone.

13. The lower leg surrogate of claim 10, including a gauze cover on at least a portion of each of said tibia body and said heel blocks for providing a mechanical link between the bone assembly and the gel.